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| 10/559,518 | 12/06/2005 | Yoshikazu Takashima | 280760US6PCT | 5266 |

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| EXAMINER |
|---|
| KING, JOHN B |

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *09 September 2009*.

2a)☒ This action is **FINAL**.     2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-6 and 8-12* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6 and 8-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____ .

## DETAILED ACTION

1.     This office action is in response to applicant's amendment filed on September 9, 2009.

2.     Claims 1-6 and 8-12 are pending in this application. Claims 1, 2, 5, 6, and 8-12 are amended by applicant's amendment. Claim 7 has been cancelled.

3.     Applicant's arguments in respect to the new issues of Claims 1-6 and 8-12 have been considered but they are not persuasive.

### *Response to Arguments*

4.     Applicant's amendments to claim 12 regarding the 35 U.S.C. 101 rejection of the previous Office Action is accepted as overcoming the rejection for software per se. However, the claim has been amended to recite a "computer readable medium", which is not defined in the specification. Therefore, a new 35 U.S.C. 101 rejection will be added for the "computer readable medium" and a rejection under 35 U.S.C. 112, second paragraph, rejection has also been included for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention regarding the definition of the "computer readable medium".

5.     Applicant's arguments filed September 9, 2009 have been considered but they are not fully persuasive. In the remarks applicant argues:

       I)     The cited prior art does not teach "setting a position at which an entity code for an entity included in a manufacturing route of the information recording medium is to be recorded and setting the entity code in a program map table."

II)      The cited prior art does not teach "wherein the entity code includes an authoring code identifying an authoring studio, and a disc manufacturer code identifying a manufacturer."

III)     The cited prior art does not teach "generating a plurality of packets in which the program map table is stored in a divided manner, and arranging the plurality of packets in a content stored packet sequence in a distributed manner."


In response to applicant's arguments:

I)      Ueda, col. 3 line 45-col. 4 line 42, teaches having a second key (entity code) which is stored in encrypted form on a storage medium. The information relating to the key and the location information of the key must be stored on a table, such as a file allocation table or similar structure. Applicant is arguing the "program map table" which was moved up from a dependant claim. Therefore, the prior art, Teunissen, was moved to reject the newly amended independent claims 8 and 12. Teunissen, col. 3 line 1, teaches the use of a program map table. It is well known in the art that a program map table is used to store data such as information and programs relating to video data in the MPEG standard.

II)      Applicant is arguing this limitation that was moved from a cancelled claim. The art, Shimoda, which was used to reject the cancelled claim has been moved to also reject the newly amended independent claims 1, 8, and 12. Shimoda, Figure 4 and col. 4 lines 36-65, teaches the use of multiple manufacturing codes such as a manufacturer code and a dedicated disc type per manufacturer.

III)    Ueda, col. 3 line 45-col. 4 line 42, teaches the data being stored on the

medium in a plurality of sectors. The data is broken up into blocks of data (sectors) and

then stored on the disc. Certain blocks of the data, such as the seed used for

generating the encryption key, are stored in a specific area of memory as shown in

Figure 3.

## *Examiner Notes*

6.     Examiner cites particular columns and line numbers in the references as applied

to the claims below for the convenience of the applicant. Although the specified citations

are representative of the teachings in the art and are applied to the specific limitations

within the individual claim, other passages and figures may apply as well. It is

respectfully requested that, in preparing responses, the applicant fully consider the

references in entirety as potentially teaching all or part of the claimed invention, as well

as the context of the passage as taught by the prior art or disclosed by the examiner.

## *Claim Rejections - 35 USC § 101*

7.     35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of
> matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the
> conditions and requirements of this title.

8.     **Claim 12** is rejected under 35 U.S.C. 101 because the claimed invention is

directed to non-statutory subject matter because of the following reason:

The claim fails to place the invention squarely within one statutory class of invention. The instant specification has not specifically defined the term "computer readable medium" and absent a definition, the term can broadly and reasonably be interpreted to include signals. As defined by the courts, signals do not fall within any of the four statutory categories of invention, see *In re Nuijten, 500 F.3d 1346, 1357 (Fed. Cir. 2007).* **Clarification by applicant is requested as to what is meant to be encompassed by "computer readable medium".**

## *Claim Rejections - 35 USC § 112*

9.      The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10.     **Claim 12** is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

11.     **Claim 12** is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The term "computer readable medium" has not been described in the specification. It is unclear to the examiner what comprises a "computer readable medium" and whether or not a "computer readable medium" can include a signal, which is non-statutory subject matter. Because the type of medium has not been clearly defined, the metes and bounds of the claim cannot be determined. For the purpose of examination the examiner will interpret the "computer readable storage

medium" to include signals. The 35 U.S.C. 101 rejection for signals has also been

included for this reason.


12.     The examiner has cited particular examples of 35 U.S.C. 112 rejections above. It

is respectfully requested that, in preparing responses, the applicant check the claims for

further 35 U.S.C. 112 rejections as being indefinite in case it was inadvertently missed

by the examiner. The following prior art rejections are based upon the examiner's best

interpretation of the claims.


## *Claim Rejections - 35 USC § 103*

13.     The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed
> or described as set forth in section 102 of this title, if the differences between the
> subject matter sought to be patented and the prior art are such that the subject
> matter as a whole would have been obvious at the time the invention was made
> to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was
> made.


14.     **Claims 1-2 and 6** are rejected under 35 U.S.C. 103(a) as being unpatentable

over Ueda et al. (US Patent 6289102 B1, published September 11, 2001) hereinafter

referred to as Ueda in view of Shimoda (US Patent 6381202 B1, file October 25, 2000).


        As per claim 1, Ueda discloses An information recording medium storing

encrypted content, comprising: a first recording area including content and an entity

code that is set for each entity included in a manufacturing route of said information

recording medium, wherein the first recording area includes an encryption processing

unit that is encrypted by a key generated based on a seed that provides encryption

processing key generating information for each encryption processing unit, wherein said

entity code is stored in an encrypted area that is encrypted by said key generated based

on said seed, said encrypted area not overlapping an area in which said seed is

recorded **(Ueda, col. 3 line 45 – col. 4 line 42, teaches a medium storing encrypted**

**content. This encrypted content is encrypted with a second content key and**

**stored on the medium. The second content key is encrypted by a first content key**

**which is also stored on the medium. The encrypted content is later retrieved by**

**decrypting the content using the second key which is decrypted by the first key.**

**Ueda, Figure 3, also teaches the use of a seed to generate keys.)**

However, Ueda does not specifically teach wherein said entity code includes an

authoring studio code identifying an authoring studio and a disc manufacturer code

identifying a manufacturer.

Shimoda discloses wherein said entity code includes an authoring studio code

(ASC) and a disc manufacturer code (DMC) **(Shimoda, col. 4 lines 36-65 and Figure**

**4, teaches the use of multiple manufacturing codes.)**

Ueda and Shimoda are analogous art because they are from the same field of

endeavor of recording information onto mediums for later retrieval. It would have been

obvious to one of ordinary skill in the art at the time the invention was made to modify

the invention of Ueda by adding the teachings of Shimoda because this would allow

disc manufacturers to put a manufacturing code on all of their discs to prevent piracy.


As per claim 2, Ueda in view of Shimoda discloses The information recording

medium according to claim 1 **[See rejection to claim 1 above]**, wherein said

encryption processing unit is set as a collective data area including a plurality of packets

and said seed is set as data having a predetermined number of bits from start data of a

start packet of said encryption processing unit; and said entity code is stored as a

payload of each of said plurality of packets and stored in a data area not overlapping an

area of bits constituting said seed **(Ueda, col. 3 line 45 – col. 4 line 42, teaches the**

**data being stored on the medium in a plurality of sectors. Ueda also teaches the**

**second key being stored as the payload of decrypting by the first key and being**

**used to decrypt the content data. Ueda, Figure 3, teaches the seed being stored**

**on disk in a certain area of the medium.)**


As per claim 6, Ueda in view of Shimoda discloses The information recording

medium according to claim 1 **[See rejection to claim 1 above]**, wherein said

information recording medium includes (1) a first seed, which is key generating

information set for said encryption processing unit, (2) an encrypted second seed, which

is key generating information encrypted based on a first block key generated by said

first seed, and (3) encrypted content and an encrypted entity code encrypted based on

a second block key generated based on said second seed **(Ueda, col. 3 line 45 – col. 4**

**line 42, teaches the second key being encrypted by the first key and the content**

**being encrypted by the second key. The content and the second key are stored in**

**encrypted for whereas the first key is stored in clear text. Ueda, Figure 4, teaches**

**seeds being used to generate keys.)**

15.     **Claims 3-5, and 8-12** as best understood are rejected under 35 U.S.C. 103(a) as

being unpatentable over Ueda in view of Shimoda and further in view of Teunissen (US

Patent 6512882 B1, filed May 7, 1999).


As per claim 3, Ueda in view of Shimoda discloses The information recording

medium according to claim 1 **[See rejection to claim 1 above]**.

However, Ueda does not teach the storing of a program map table.

Teunissen discloses wherein said entity code is stored in a program map table

(PMT) specified by the MPEG standard and said entity code provides data constituting

a start packet of a plurality of divided packets storing said program map table (PMT) in a

program information area of said program map table (PMT) **(Teunissen, col. 3 line 1,**

**teaches the storing of a program map table on the medium.)**

Ueda and Teunissen are analogous art because they are from the same field of

endeavor of storing data on a medium to be read later. It would have been obvious to

one of ordinary skill in the art at the time the invention was made to modify the invention

of Ueda by adding the teachings of Teunissen because this would have been expected

in the art. Ueda, col. 1 lines 26-38, teaches the use of the MPEG standard in recording

data onto a medium. The use of the PMT with the MPEG standard is well known and

expected in the art.



As per claim 4, Ueda in view of Shimoda and further in view of Teunissen

discloses The information recording medium according to claim 3 **[See rejection to**

**claim 3 above]**, wherein said start packet of said plurality of divided packets is a

transport stream packet having a payload of 183 bytes and said entity code is stored as

data within 183 bytes from start data of said program map table (PMT) in said program

information area of said program map table (PMT) **(Teunissen, Figure 2, teaches the**

**packet payload being 184 bytes. Making the packet payload be 183 bytes would**

**have been an obvious design choice.)**



As per claim 5, Ueda in view of Shimoda discloses The information recording

medium according to claim 1 **[See rejection to claim 1 above].**

However, Ueda does not teach the storing of a program map table.

Teunissen discloses wherein said entity code is stored in a program map table

(PMT) specified by the MPEG standard; and said program map table (PMT) is stored as

a payload of each of a plurality of transport stream packets in a divided manner

**(Teunissen, col. 3 line 1, teaches the storing of a program map table on the**

**medium.)**, and each of said plurality of transport stream packets is attached with

timestamp information to be stored in said information recording medium as a source

packet in a distributed manner **(Teunissen, Figure 1, teaches the packets having a time code.)**

Ueda and Teunissen are analogous art because they are from the same field of endeavor of storing data on a medium to be read later. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Ueda by adding the teachings of Teunissen because this would have been expected in the art. Ueda, col. 1 lines 26-38, teaches the use of the MPEG standard in recording data onto a medium. The use of the PMT with the MPEG standard is well known and expected in the art.

As per claims 8 and 12, Ueda discloses A data processing method for generating data to be written to an information recording medium, comprising: setting a position at which an entity code for an entity included in a manufacturing route of said information recording medium is to be recorded and setting said entity code in a program map table **(Ueda, col. 3 line 45 – col. 4 line 42, teaches a second key being used to encrypt data. The second key is stored in encrypted for and encrypted by a first key.)**; generating a plurality of packets in which said program map table is stored in a divided manner; arranging said plurality of packets in a content stored packet sequence in a distributed manner **(Ueda, col. 3 line 45-col. 4 line 42, teaches the data being broken into sectors to be stored on the medium.)**; and encrypting data included in an encryption processing unit by use of a key generated based on a seed, which is encryption processing key generating information that is set for said encryption

processing unit **(Ueda, col. 3 line 45 – col. 4 line 42, teaches a second key being used to encrypt data. The second key is stored in encrypted for and encrypted by a first key. Ueda, Figure 4, teaches using a seed to generate keys.)**, wherein said setting step includes executing control such that said entity code is included in an encrypted area encrypted by a key generated based on said seed without overlapping an area in which said seed is set **(Ueda, col. 3 line 45 – col. 4 line 42, teaches a second key being used to encrypt data. The second key is stored in encrypted for and encrypted by a first key.)**

However, Ueda does not specifically teach wherein said entity code includes an authoring studio code identifying an authoring studio and a disc manufacturer code identifying a manufacturer.

Shimoda discloses wherein said entity code includes an authoring studio code (ASC) and a disc manufacturer code (DMC) **(Shimoda, col. 4 lines 36-65 and Figure 4, teaches the use of multiple manufacturing codes.)**

Ueda and Shimoda are analogous art because they are from the same field of endeavor of recording information onto mediums for later retrieval. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Ueda by adding the teachings of Shimoda because this would allow disc manufacturers to put a manufacturing code on all of their discs to prevent piracy.

However, Ueda in view of Shimoda does not specifically teach that the data in stored in a program map table.

Teunissen discloses wherein said entity code is stored in a program map table **(Teunissen, col. 3 line 1, teaches the storing of a program map table on the medium.)**

Ueda and Teunissen are analogous art because they are from the same field of endeavor of storing data on a medium to be read later. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Ueda by adding the teachings of Teunissen because this would have been expected in the art. Ueda, col. 1 lines 26-38, teaches the use of the MPEG standard in recording data onto a medium. The use of the PMT with the MPEG standard is well known and expected in the art.

As per claim 9, Ueda in view of Shimoda and further in view of Teunissen discloses The data processing method according to claim 8 **[See rejection to claim 8 above]**, wherein said encryption processing unit is a collective data area of a plurality of packets, said seed is data having a predetermined number of bits from start data of a start packet of said encryption processing unit; and said setting step includes setting said entity code to a data area that does not overlap an area of bits constituting said seed **(Ueda, col. 3 line 45 – col. 4 line 42, teaches the data being stored on the medium in a plurality of sectors. Ueda also teaches the second key being stored as the payload of decrypting by the first key and being used to decrypt the content data. Ueda, Figure 3, teaches the seed being stored on disk in a certain area of the medium.)**

As per claim 10, Ueda in view of Shimoda and further in view of Teunissen discloses The data processing method according to claim 8 **[See rejection to claim 8 above]**, wherein said setting step comprises setting said entity code in a program information area of said program map table (PMT) specified by the MPEG standard and to a position of data constituting a start packet of a plurality of divided packets storing said program map table (PMT) **(Teunissen, col. 3 line 1, teaches the storing of a program map table on the medium.)**

As per claim 11, Ueda in view of Shimoda and further in view of Teunissen discloses The information processing method according to claim 10 **[See rejection to claim 10 above]**, wherein said start packet of said plurality of divided packets is a transport stream packet having a payload of 183 bytes and said setting step comprises setting said entity code as data in said program information area of said program map table (PMT) and within 183 bytes from start data of said program map table (PMT) **(Teunissen, Figure 2, teaches the packet payload being 184 bytes. Making the packet payload be 183 bytes would have been an obvious design choice.)**

## *Conclusion*

16.    **THIS ACTION IS MADE FINAL.**  Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action.  In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action.  In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.


17.     Any inquiry concerning this communication or earlier communications from the

examiner should be directed to John B. King whose telephone number is (571) 270-

7310.  The examiner can normally be reached on Mon. - Fri.  7:30 AM - 4:00 PM est..

        If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Kim Vu can be reached on (571 )272-3859.  The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system.  Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John B King/
Examiner, Art Unit 2435

/Ponnoreay Pich/
Primary Examiner, Art Unit 2435